UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
BULLOCK JR, LEWIS ALEXANDER

ART UNIT	PAPER NUMBER
2195	

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	**Application No.** 09/475,092	**Applicant(s)** JULIA ET AL.
	Examiner Lewis A. Bullock, Jr.	**Art Unit** 2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 December 1999* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *8/13/02*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Drawings

1.   New corrected drawings in compliance with 37 CFR 1.121(d) are required in this

application because of Draftperson's Review. Applicant is advised to employ the

services of a competent patent draftsperson outside the Office, as the U.S. Patent and

Trademark Office no longer prepares new drawings. The corrected drawings are

required in reply to the Office action to avoid abandonment of the application. The

requirement for corrected drawings will not be held in abeyance.

Claim Objections

2.   Claim 1 is objected to because of the following informalities: Line 5, states "are

are". Appropriate correction is required.

3.   Claim 11 and 31 are objected to because of the following informalities: Line 2,

states "voice command input including.". Appropriate correction is required.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   Claims 1-6, 22-26, 41, 42, 44 and 45 are rejected under 35 U.S.C. 102(b) as

being anticipated by "Multimodal User Interfaces in the Open Agent Architecture" by

MORAN et al..

As to claim 1 MORAN teaches a collaborative community of distributed electronic

agents (agents), organized to provide a mobile computing environment (pg. 1, "Only the

primary user interface agents need run on the local computer, thereby simplifying the

task of using a range of applications from a variety of platforms, especially low-powered

computers such as Personal Digital Assistants (PDAs)."), the community of distributed

electronic agents (agents) comprising: an agent registry (memory / storage used by

facilitator for storing agent capabilities) wherein one or more capabilities of each of the

electronic agents are registered in the form of an inter-agent communication language

(ICL) (via registering with the facilitator) (pg. 4, "When an agent is added to the

application, it registers its capabilities with the Facilitator...When an agent needs work

done by other agents within the application, it sends a request to the Facilitator which

then delegates it to an agent or agents, that have registered that they can handle the

needed tasks."); a facilitator agent (Facilitator) arranged to coordinate cooperative task

completion among the electronic agents (agents) by delegating one or more received

ICL goals (requests) to a selected one or more electronic agents (agents) based upon

the registered capabilities of the selected agents (pg. 4, "When an agent is added to the

application, it registers its capabilities with the Facilitator...When an agent needs work

done by other agents within the application, it sends a request to the Facilitator which

then delegates it to an agent or agents, that have registered that they can handle the

needed tasks."); one or more service-providing electronic agents (agents), being in bi-directional communication with the facilitator agent (Facilitator), including at least one location agent (calendar agent) operable to ascertain a current physical location of a user (pg. 5, "The notify action involves...For example, if the user is in a meeting in a conference room, the Notify agent first determines his current location by checking his calendar..."); and one or more computer interface agents (User Interface Agents) being in bi-directional communication with the facilitator agent (Facilitator), the mobile computer interface agents (User Interface Agents) being operable to process at least one mobile user input type (modality / speech / pen-based input) and to responsively generate and present to the facilitator agent (Facilitator) one or more ICL goals (request) corresponding to the user's desired request, whereby the mobile user is capable of accessing both local and remote resources (appropriate application agents) (pg. 2, "The user interface is implemented with a set of agents that have at their logical center an agent called the User Interface (UI) Agent. The User Interface Agent manages the various modalities and applies additional interpretation to those inputs as needed...When the UI Agent detects speech or pen-based input, it invokes a speech recognition agent or handwriting recognition agent, and sends the text returned by that agent to a natural language understanding agent, which produces a logical form representation of the user's request. This logical form is then passed to a Facilitator...which is then passed to the Facilitator agent for delegation to the appropriate application agents.").

As to claim 41, MORAN teaches a method for proactively providing a mobile user with location-sensitive navigational information, the method comprising the acts of: setting an automatic software trigger (trigger), the trigger being condition upon detecting a specified condition (pg. 5, "The OAA supports triggers in which both the condition and action parts of a request can cover the full range of functionality represented by the agents dynamically connected to the network."); detecting the specified condition (pg. 5, "When an advertisement meeting the specified criteria is detected, a request is sent to the Facilitator for a notify action to be delegated to the appropriate other agents."); using an electronic location agent (Calendar agent) to ascertain the mobile user's current location (pg. 5, "The notify action involves...For example, if the user is in a meeting in a conference room, the Notify agent first determines his current location by checking his calendar..."); and in response to the software trigger (trigger), using one or more interface agents (User Interface Agents) to present navigational information to the user relative to the user's current location (pg. 6, "Requests expressed in a variety of modalities can control the scrolling and zoom level of the map, retrieve information about locations and distances, display hotels or attractions meeting a user's preferences, or present detailed information in a variety of media about particular hotels or attractions.").

As to claim 45, MORAN teaches a highly mobile, ambient computing environment utilizing a community of distributed electronic agents (agents), the computer environment (pg. 1, "Only the primary user interface agents need run on the

local computer, thereby simplifying the task of using a range of applications from a

variety of platforms, especially low-powered computers such as Personal Digital

Assistants (PDAs).") comprising: a plurality of autonomous service-providing electronic

agents (agents) associated with available resources (data / capabilities / maps); a

facilitator agent (Facilitator) arranged to coordinate cooperative task completion utilizing

the plurality of autonomous service-providing electronic agents (pg. 4, "When an agent

is added to the application, it registers its capabilities with the Facilitator...When an

agent needs work done by other agents within the application, it sends a request to the

Facilitator which then delegates it to an agent or agents, that have registered that they

can handle the needed tasks."); and a mobile computer interface (User Interface Agent)

responsive to a plurality of user input types (modalities / speech / pen-based input), the

mobile computer interface being in bi-directional communication with the facilitator

agent (Facilitator), the mobile computer interface operable to forward a user request for

resource access to the facilitator agent for processing, the mobile computer interface

further operable to provide the user the requested resource access as provided by the

facilitator agent, whereby the mobile user is capable of accessing both local and remote

resources (pg. 2, "The user interface is implemented with a set of agents that have at

their logical center an agent called the User Interface (UI) Agent. The User Interface

Agent manages the various modalities and applies additional interpretation to those

inputs as needed...When the UI Agent detects speech or pen-based input, it invokes a

speech recognition agent or handwriting recognition agent, and sends the text returned

by that agent to a natural language understanding agent, which produces a logical form

representation of the user's request. This logical form is then passed to a

Facilitator...which is then passed to the Facilitator agent for delegation to the

appropriate application agents.").

As to claims 2-4, MORAN teaches the mobile computer interface agents (User

Interface Agents) and location agent (location agent / agent handling maps) are

collaboratively operable to provide Multi-modal Map information (Map-based Tourist

Information) relative to the user's current location wherein the map information includes

spoken directions (voice commands) by means of a text-to-speech output agent

(Speech Recognition Agent) (pg. 2,"When the UI agent detects speech or pen-based

input, it invokes a speech recognition agent or handwriting recognition agent, and sends

the text returned by that agent to a natural language understanding agent, which

produces a logical form representation of the user's request. This logical form is then

passed to a Facilitator agent, which identifies the subtasks and delegates them to the

appropriate agents. For example, in our Map-based Tourist Information....The locations

of the two places are managed by different agents, and the distance calculation is

performed by yet another agent."; see also pg. 6, Map-based Tourist Information)

As to claim 5-6, MORAN teaches one or more conditional triggers (triggers)

associated with one or more of the electronic service agents (agents), and wherein the

community is collaboratively operable to interact with the user based in part by the

location agent (calendar agent) in response to the triggers condition (pg. 5, "The OAA

supports triggers in which both the condition and action parts of a request can cover the

full range of functionality represented by the agents dynamically connected to the

network."; pg. 5, "The notify action involves...For example, if the user is in a meeting in

a conference room, the Notify agent first determines his current location by checking his

calendar...").

As to claim 20, MORAN teaches the at least one mobile user input type is

selected from the following group: speech, gestures, pen/stylus input, and touch-screen

input (pg. 2, "When the UI Agent detects speech or pen-based input...").

As to claim 21, MORAN teaches the mobile computing environment is provided

in a handheld computing device (PDA / lightweight portable computer) (pg. 1, "Mobile

section).

As to claim 22-26, reference is made to a method that corresponds to the system

of claims 1-4 and 6 and therefore is met by the rejection of claims 1-4 and 6 as detailed

above. However, claim 22 further discloses that the performance by the selected

electronic agents, generate one or more new ICL goals for processing by the facilitator

agent and processing all ICL sub-goals until the original goal is satisfied. MORAN

teaches that the performance of requests by selected electronic agents (agents), the

generation of one or more new ICL goals for processing by the facilitator agent

(Facilitator) and processing all ICL sub-goals (via distributing to the appropriate agent)

(pg. 2, "The user interface is implemented with a set of agents that have at their logical

center an agent called the User Interface (UI) Agent. The User Interface Agent

manages the various modalities and applies additional interpretation to those inputs as

needed...When the UI Agent detects speech or pen-based input, it invokes a speech

recognition agent or handwriting recognition agent, and sends the text returned by that

agent to a natural language understanding agent, which produces a logical form

representation of the user's request. This logical form is then passed to a

Facilitator...which is then passed to the Facilitator agent for delegation to the

appropriate application agents."). It would be inherent within the teachings of MORAN

that sub-request of the overall request are handled in the same manner as disclosed

with the original request since the Facilitator functionality is to decompose complex

requests and translate the terminology used (pg. 4) and a sub-request is a parent

request in its sub-processing.

As to claim 42, MORAN teaches the navigational information includes one or

more of the following: visual display of a map (pg. 6, Map-based Tourist Information

section) and spoken directions (pg. 6, "Map-based interfaces provide a rich setting in

which to explore the coordination of gesture with speech and traditional GUI

modalities....Display of hotels can be obtained by writing or speaking.").

As to claim 44, MORAN teaches the specified trigger condition includes the

contents of an electronic calendar (pg. 5, "The notify action involves...For example, if

the user is in a meeting in a conference room, the Notify agent first determines his

current location by checking his calendar...").

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 7-19, 27-39 and 43 are rejected under 35 U.S.C. 103(a) as being

unpatentable over "Multimodal User Interfaces in the Open Agent Architecture" by

MORAN et al.

As to claims 7-19, MORAN teaches user interfaces agents execute on mobile

computing environments and are used to control a range of applications from a variety

of platforms (abstract), by receiving voice input or pen-based inputs, converting the

input to a logical form representation, that is then passed to a Facilitator agent which

identifies the subtasks based on the registered capabilities and delegates them to the

appropriate agents (pg. 2, The User Interface). It is inherent within the teachings of

MORAN that pen-based inputs require a visual display that is manipulated by the user.

However, MORAN does not teach that the various services control electronic devices,

an email system, a telephone system, a voicemail system, a game system, access to

the Internet, a television system, car manuals, or diagnostic information. Official Notice

is taken in that the various systems are well known in the art and therefore would be

obvious in view of MORAN in order to provide agent interaction and execution of the requested service. For instance, it is well known in the art that a cell phone, a type of mobile device, has an interface for games, the Internet, voicemail, and dialing functions. A remote control device has functions for interfacing with a television. In addition, online car manuals and diagnostic information systems wherein a user enters a password to access this information is also well known in the art, as well as, computers implemented into the dash of an automobile for global positioning and displaying related information about sensors of the automobile.

As to claim 27-39, reference is made to a method that corresponds to the system of claims 7-19 and therefore is met by the rejection of claims 7-19 as detailed above.

As to claim 43, MORAN substantially discloses the invention above. However, MORAN does not explicitly teach the status of a vehicle sensor. Official Notice is taken in that it is well known in the art at the time of the invention that vehicles have global positioning sensors within vehicles that detail the location of a user, i.e. the driver. It would be obvious in view of MORAN that the when the user asks for the distance from here to here, that the vehicle global positioning is consulted to answer the request. Therefore, it would be obvious to one skilled in the art to combine MORAN with the well known global positioning sensors of vehicles to handle a mobile request.
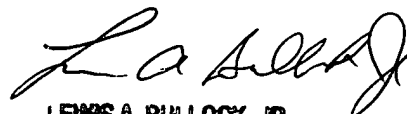
Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (571)

272-3759. The examiner can normally be reached on Monday-Friday, 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng An can be reached on (571) 272-3756. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

March 19, 2005

LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER